Spring 4-20-2021

Post Operative Handoff Tool Benchmark Project

Savannah E. Vinson
savannahelizabeth93@gmail.com

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The University of Texas at Tyler

NURS 5382 Capstone

April 06, 2021

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Acknowledgements

I would like to thank the faculty at the University of Texas at Tyler for their ongoing support throughout my time in graduate school. I truly could not have completed this without the support, feedback, patience, and guidance of my instructors, and I am so thankful to have been a part of your program. I also want to thank my husband, Brock, and my son, Tripp. I know it has not been easy on either of you having a wife and mother in graduate school and working, but your sacrifices have not gone unnoticed. Thank you, Brock, for the numerous meetings you rescheduled and inconveniences you suffered I could have time and space to complete my coursework, and thank you, Tripp, for being my inspiration and the reason for everything I do. Lastly, thank you, God, for the strength and perseverance to balance my education, my family, and work.

Executive Summary

According to a sentinel event statement issued by The Joint Commission in 2017, inadequate hand-off communication is responsible for many adverse-events, including sentinel events in healthcare. A study released in 2016 estimated that communication failures in U.S. hospitals and medical practices were responsible at least in part for 30 percent of all malpractice claims, resulting in 1,744 deaths and $1.7 billion in malpractice costs over five years(The Joint Commission [TJC], 2017). Successful handoff communication has the potential to substantially improve patient safety when leadership displays their commitment to successful handoff, when handoff is standardized and done face-to-face between healthcare providers, when handoff is done in a location free from interruption, when training has been conducted on proper handoff techniques, when the success of handoff is monitored, and if high-quality handoff is made a priority (TJC, 2017). The current process of post-operative handoff in this facility does not comply with The Joint Commission's recommendations and displays a need for change. In order for post-operative handoff between the operating room and the post-anesthesia care unit to be effective and promote patient safety, a standardized method of giving patient report must be implemented. I am proposing a project that will monitor the implementation of a standardized Post-Operative Handoff (POH) tool to be used when a patient is moved from the Operating Room (OR) to the Post-Anesthesia Care Unit (PACU) in order to improve the quality of POH in our facility. This project will occur in 3 phases, with phase 1 consisting of anonymous auditing of current POH procedures to identify breakdowns in communication, phase 2 will involve education of OR staff, PACU nurses, and administration on the use of a standardized POH tool

to guide report, and phase 3 will consist of another round of POH audits to determine if the POH tool has been effective.

Rationale

According to the American Academy of Nurse Anesthetists, the transfer of care from the OR to the PACU is an especially susceptible time for information loss to occur. Information loss can lead to sentinel events, medication errors, and poor patient outcomes. It is in the interest of patient safety to use a checklist and other objective measures to decrease errors and improve patient safety(Robbins & Dai, 2015). It is estimated that 80% of medical errors can be traced back to communication failure during patient handoff(TJC, 2017). The PACU is also a busy, loud, and distracting environment, making POH even more difficult. Anesthesia providers may also be experiencing pressure to "hurry up" and move on to the next surgical case, resulting in information loss. A lack of standardization has also been identified as a contributing factor to communication error. Without a standardized process for POH, we depend on the communication abilities of the providers exchanging patient information. A systems approach focuses on the entire process, and can provide a mechanism for the provider to relay information accurately in a standardized fashion (Robbins & Dai, 2015).

The goal of this project is to implement a standardized POH tool to be used in the PACU in order to improve the quality of information transferred from the anesthesia provider to the PACU nurse, resulting in improved patient outcomes. If successful, this tool will be a valuable asset to our surgical department and help us to avoid dangerous and costly mistakes in the future.

Literature Synthesis

In reviewing the literature on the topic of patient handoff in the PACU, multiple articles were found that heralded the need for a standardized way to provide POH in the PACU. Many researchers have implemented projects similar to what I am proposing, and without fail, the quality of POH always improves when a standardized tool is utilized. Salzwedel et al., (2013) completed a randomized controlled trial on the effect of a checklist on the quality of POH and found that with the use of a written checklist, the number of items addressed in POH increased significantly, therefore increasing the quality of POH. Van Der Walt et al., (2016) performed a prospective, unblinded cross-sectional study and found that the implementation of a POH protocol resulted in a dramatic improvement in information sharing and decreased the number of interruptions during POH. Potestio et al., (2015) had similar findings, but emphasized the importance of the POH tool being succinct in order to more easily transition healthcare team members into using the tool as part of their everyday practice while avoiding the negative response that more lengthy checklists have received in previous studies. Halterman et al., (2019) implemented a quality improvement project at their facility in which they utlized a checklist for POH and found that with continued use of their POH checklist, transfer of care was improved by ensuring that the PACU RN receives pertinent medical information. Lambert and Adams (2018) developed a tool to be used when providing patient handoff in both the OR between anesthesia providers and when giving POH to the PACU RN called the Written Handoff Anesthesia Tool (WHAT) and found that the quality of POH improved significantly with the use of their POH tool.

Stakeholders

The involvement of those with a vested interest in providing safe and effective patient care is necessary for the success of this project. In order to be able to implement the Post-Operative Handoff Tool, the support of the CNO, senior management, and the OR director is needed. The support of the PACU manager and the Head of Anesthesiology will also be needed. Stakeholders for the actual education and implementation portion of the project will include the Certified Registered Nurse Anesthetists, PACU RN's, nurse educators, and other staff that may volunteer to assist with audits. If all stakeholders offer their support, we will be able to implement a successful change project that could potentially save patient lives and help the hospital avoid costly litigation in the future.

Plan for Implementation in the Future

Phase 1

The pre-intervention phase, or phase 1, will last for 1 week. During this time, PACU RN's and other staff who volunteer to assist will anonymously audit as many POH occurrences for adult surgical patients (age 18 and over) being transferred from the OR to the PACU as possible. Pediatric surgical patients and those being transferred directly to the Intensive Care Unit (ICU) will not be audited. The anesthesia providers will be blinded to the fact that data ia being collected at this time in order to avoid possible Hawthorne effect based on the knowledge that they are being monitored. The person performing the audit will use the POH tool and indicate with a check mark if the item was included in the POH. Each check box will count as one item of information transferred when the audits are scored. During this phase, auditors will also be encouraged to write in other important pieces of information being transferred in the "Recommendation" box in order to evaluate the need for changes to the POH tool in the future.

During this phase, the interdisciplinary team will be available in-person or via email/phone to provide education about the project. Education will also be provided so all involved are aware that the POH tool is not part of the patient's medical record, it is simply a tool to guide handoff between the OR and PACU.

Phase 2

During the following 3 weeks, numerous ways to access the POH tool will be provided including small, laminated cards designed to be worn on the anesthesia provider and RN's badge reel, laminated copies at eye-level in each PACU bay, and plain paper copies available at the PACU nurses' station and each PACU bay. PACU RN's will also be encouraged to not receive report from the anesthesia provider until the patient is connected to all monitors and initial vital signs have been obtained in order to reduce distraction and maximize the amount of information they are able to receive. PACU RN's will also be encouraged to use the POH tool to take report if they wish, allowing them to follow along as the anesthesia provider gives report and ask for clarification if needed. The research team will be available throughout this phase to provide education as needed.

Phase 3

After the 3-week adjustment and education period, post-intervention data collection will begin. Data will be collected using similar methods to phase 1, also over the span of one week to allow for more equal comparison of data. Audits of the POH will be performed by PACU RN's who are not responsible for assuming care of the patient being handed over to allow them to focus on gathering the information, and as many occurrences of POH will be audited as possible. The POH tool will be used to audit and a check mark will be used to indicate if the item of information was addressed during the POH. As in phase 1, anesthesia staff will be blinded to the

fact that data is being collected in order to avoid the possibility of Hawthorne effect. As in similar studies, a Mann-Whitney test will be used to determine if the difference in amount of data transferred in POH is significant, and therefore answer the research question.

Timeline

As discussed in the planning section, this project would span about 5 weeks not including the pre-project phase that has been in development since January 2021. During previous semesters of my graduate school journey, different topics such as modalities of non-analgesic pain management were pursued but unable to be completed due to a change in management and my having to go on maternity leave. During this semester, the topic of POH was chosen and discovered to be a viable topic for research, but due to COVID-19 the project was not able to be implemented.

Figure 1

Timeline


Form interdiciplinary research team of at least 4 PACU RN's, 2 CRNA's, and 1 Anesthesiologist
Send email to all anesthesia providers, PACU RN's, OR RN's and administrators describing the project
Phase 1-1 week
Research team will use POH tool to audit as many POH as possible- team will also provide education during this time via email/phone or drop-in sessions
Phase 2- 3 weeks
Team will distribute POH tool badge-reel cards, handouts, and make copies of POH tool available at nurses' station and each PACU bay. Allow 3 weeks for staff to adjust to using the POH tool.
Phase 3- 1 week
Research team/PACU RN's that volunteer will use POH Tool to audit as many POH as possible as in phase 1
Compare data from pre and post intervention using Mann-Whitney test to answer research question

Data Collection Methods

Data collection for this benchmark project was done by synthesizing and analyzing the available literature on the subject of POH in the PACU. Strengths and weaknesses of the studies reviewed were taken into account and used to influence the creation of the POH tool and the methods that will be used to analyze the findings. One this project is implemented, data will be collected by using the POH tool to indicate items of information addressed during POH pre and post intervention in order to determine if use of the POH tool improves quality of information transfer in the PACU.

Cost/Benefit Discussion

The cost of this project is very minimal. No additional work hours will need to be approved for participants, all research will be done as part of an education program or done during regular work hours. The cost of supplies including paper for handouts, lamination of badge-reel cards and POH tools to post in PACU bays, printer ink, pens, folders, and snacks to be put out during education sessions is estimated at around $200.

Overall Discussion and Results

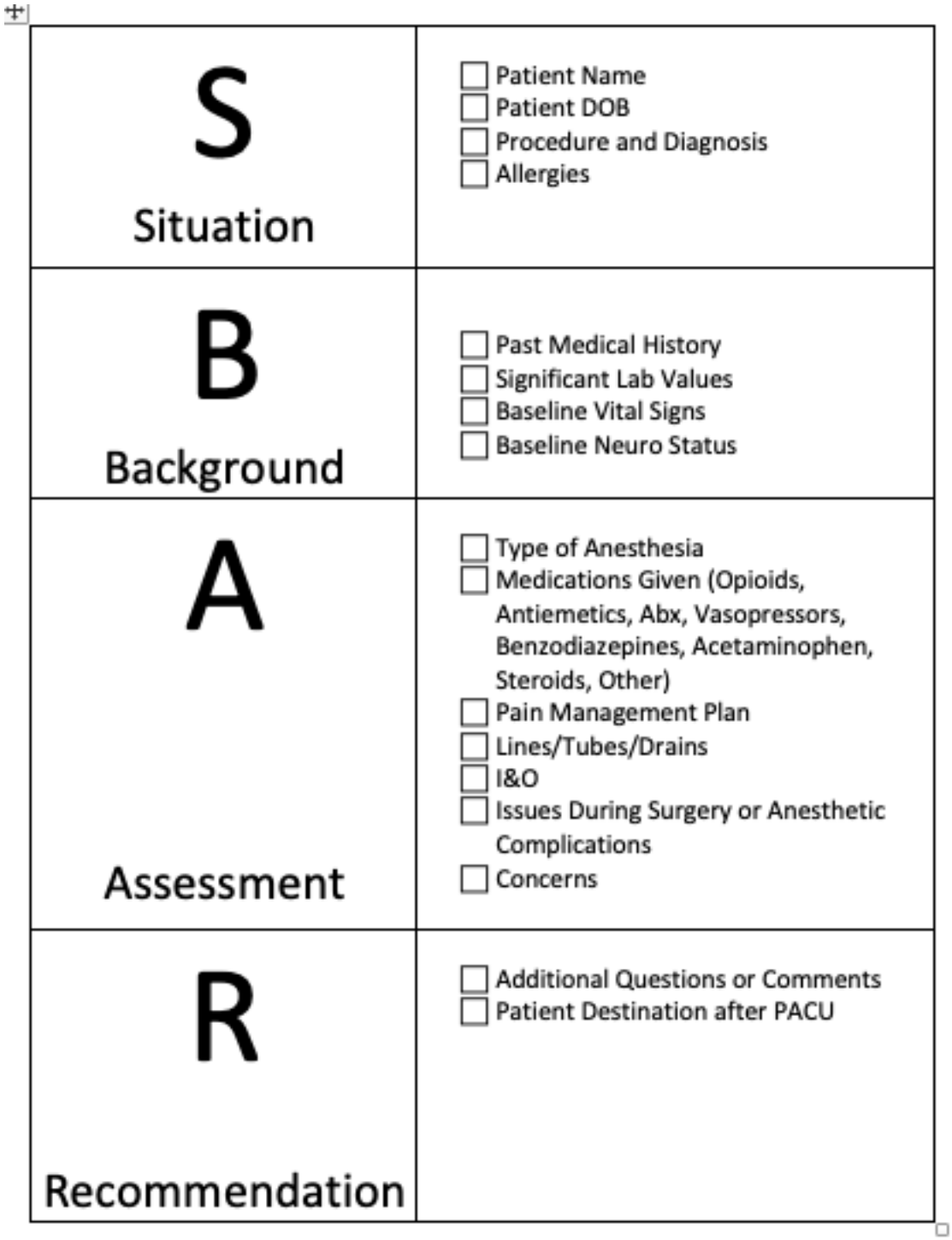
There are no official results of this project at this time. Upon discussion of the project with the OR director and the PACU manager, it is felt that once we can fully support the additional work of a quality improvement project, this will be a great thing to implement in our PACU. Current management feels as if the evidence supports this project and it will be beneficial to our patients.

Conclusion/Recommendations

As discussed in an article by Rose et al., (2018) the PACU is an event-driven and time pressured environment. The PACU RN is typically responsible for re-establishing patient monitors and maintaining vigilance over the patient while simultaneously attempting to receive handoff from the anesthesia provider. A standardized tool to be used during this transition of care can be greatly beneficial to all involved. The anesthesia provider can feel assured that they have delivered all pertinent information to the receiving RN, and the RN can be equipped to provide excellent care to their patient without having to research in the patient chart and/or make phone calls to the anesthesia provider to ask questions or request orders. With all of the aforementioned evidence to support the implementation of a standardized POH tool, I recommend that we implement this project as soon as possible.

Post-Operative Handoff Tool

Figure 2



S Situation	☐ Patient Name ☐ Patient DOB ☐ Procedure and Diagnosis ☐ Allergies
B Background	☐ Past Medical History ☐ Significant Lab Values ☐ Baseline Vital Signs ☐ Baseline Neuro Status
A Assessment	☐ Type of Anesthesia ☐ Medications Given (Opioids, Antiemetics, Abx, Vasopressors, Benzodiazepines, Acetaminophen, Steroids, Other) ☐ Pain Management Plan ☐ Lines/Tubes/Drains ☐ I&O ☐ Issues During Surgery or Anesthetic Complications ☐ Concerns
R Recommendation	☐ Additional Questions or Comments ☐ Patient Destination after PACU

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